

REMARKS:

An election of Group I was made on October 13, 2005. This amendment cancels all of the claims that are directed to non-elected inventions (claims 17, 18, 28, 32, 34, and 36-42).

All of the claims pending in the subject patent application have been rejected as being obvious under 35 U.S.C. 103(a) over the teachings of Tsujimoto et al (United States Patent 5,597,867) in view of what the Examiner has deemed to be admitted prior art. However, claim 1 has been amended in a manner that further distinguishes it from the teachings of Tsujimoto. It is believed that the claims now pending in the subject patent application are fully in compliance with the requirements of 35 U.S.C. 103(a) and the Examiner is accordingly respectfully requested to reconsider her position.

Claim 1 has been amended to call for a minimum of 25 parts by weight of the highly saturated elastomer to be present in the soft thermoplastic composition. This is in sharp contrast to the level of compatibilizing agent called for by Tsujimoto. More specifically, the blends described by Tsujimoto contain a maximum of 20 parts by weight of the compatibilizing agent (see Tsujimoto at column 11, lines 26-29). In fact, Tsujimoto indicates that if the level of compatibilizing agent exceeds 20 parts by weight, the hardness of the thermoplastic elastomer composition becomes high, the low-temperature impact resistance becomes inferior and the composition ceases to exhibit rubbery elasticity (see Tsujimoto at column 11, lines 37-42). Thus, the teachings of Tsujimoto emphasize the importance of limiting the amount of compatibilizing agent in the blend to a maximum of 20 parts by weight. This is in sharp contrast to the invention now being claimed wherein the soft thermoplastic composition contains a minimum of 25 parts by weight of the highly saturated elastomer. It is not obvious from the teachings of Tsujimoto that the soft thermoplastic composition called for in claim 1 which contains at least 25 parts by weight of the highly saturated elastomer would be useful for any purpose. The teachings of Tsujimoto teach away from the invention now being claimed with respect to the amount of the highly saturated elastomer called for in claim 1. In any case, the teachings of Tsujimoto certainly do not suggest or imply that compositions containing such a high level of the compatibilizing agent would be useful as soft overmolding compositions. Furthermore, Tsujimoto states that such compositions cease to exhibit rubbery elasticity.

Dependent claims 43, 44, 45, and 46 call for the highly saturated elastomer to be hydrogenated polybutadiene, hydrogenated polyisoprene, hydrogenated styrene-isoprene random copolymers, or hydrogenated styrene-butadiene random copolymers, respectfully. The teachings of Tsujimoto do not suggest or imply that any of these polymers would be useful in the soft thermoplastic composition called for in the articles now being claimed. The specific highly saturated elastomers specified in claims 43-46 and 48-51 fall outside of the scope of the polymers taught for use as compatibilizing agents by Tsujimoto. The compatibilizing agents disclosed by Tsujimoto fall into the following classes:

(e-1): a hydrogenated block copolymer obtained by hydrogenating a copolymer comprising at least two terminal blocks each consisting mainly of a vinyl aromatic compound and at least one intermediate polymer block consisting mainly of a conjugated diene compound,

(e-2): an ethylene-.alpha.-olefin copolymer,

(e-3): an epoxy-modified block copolymer obtained by hydrogenating a copolymer comprising at least two terminal blocks each consisting mainly of a vinyl aromatic compound and at least one intermediate polymer block consisting mainly of a conjugated diene compound,

(e-4): an epoxy-modified ethylene-.alpha.-olefin(-non-conjugated diene) copolymer rubber,

(e-5): an epoxy-modified polyolefin resin,

(e-6): a maleic anhydride-modified hydrogenated block copolymer obtained by hydrogenating a copolymer comprising at least two terminal blocks consisting mainly of a vinyl aromatic compound and at least one intermediate polymer block consisting mainly of a conjugated diene compound,

(e-7): a maleic anhydride-modified ethylene-.alpha.-olefin(-non-conjugated diene) copolymer rubber,

(e-8): a maleic anhydride-modified polyolefin resin,

(e-11): a compatibilizing agent prepared by melt-reacting an epoxy group-containing polypropylene resin as an essential component with at least one member selected from carboxylic acid-modified resins such as polyethylene having carboxylic anhydride group and/or carboxyl group in the molecule, ethylene copolymer having carboxylic anhydride group and/or carboxyl

group in the molecule, styrene block copolymer having carboxylic anhydride group and/or carboxyl group in the molecule, its hydrogenated product, styrene random copolymer having carboxylic anhydride group and/or carboxyl group in the molecule and its hydrogenated product and the like,

(e-12): a compatibilizing agent prepared by melt-reacting a maleic anhydride group-containing polypropylene resin as an essential component with at least one member selected from epoxy-modified resins such as epoxy group-containing polyethylene, epoxy group-containing ethylene copolymer, epoxy group-containing styrene block copolymer, its hydrogenated product, epoxy group-containing styrene random copolymer, its hydrogenated product and the like, and

(e-13): a compatibilizing agent prepared by dynamically heat-treating, in the presence of a peroxide, a blend of a polypropylene as an essential component with at least one resin selected from the group consisting of polyethylene, ethylene copolymer, styrene block copolymer, its hydrogenated product, styrene random copolymer and its hydrogenated product.

The hydrogenated polymers called for in claims 43-46 and 48-51 as the highly saturated elastomer do not fall into any of the classes of compatibilizing agents delineated by Tsujimoto. Accordingly, the teachings of Tsujimoto do not render obvious the utilization of hydrogenated polybutadiene, hydrogenated polyisoprene, hydrogenated styrene-isoprene random copolymers, or hydrogenated styrene-butadiene random copolymers as the highly saturated elastomer of the soft thermoplastic composition called for in the article of manufacture now being claimed.

Claim 1 has also been amended so as to specify that the soft thermoplastic elastomer composition is cured with sulfur or a phenolic curative. This is again in contrast to the teachings of Tsujimoto which call for the use of an organosiloxane crosslinking agent having at least two SiH groups. It should be noted that Tsujimoto calls also for a hydroxysilating catalyst to be present in the thermoplastic elastomer compositions disclosed therein. In any case, the teachings of Tsujimoto do not disclose or suggest that such compositions could be cured with sulfur or a phenolic curative as called for in claim 1 of the present patent application.

It should be noted that the invention called for in new claim 47 is even further removed from the teachings of Tsujimoto by virtue of precluding the presence of an organosiloxane crosslinking agent or a hydrosilating catalyst in the soft thermoplastic compositions called for

therein. This is because claim 47 uses the closed-ended transitional language "consisting of" with respect to defining the soft thermoplastic composition. The closed ended transitional language of claim 47 accordingly removes compositions that contain an organosiloxane crosslinking agent and/or a hydrosilating catalyst from the scope of compositions that could be used as the soft thermoplastic overmolding compositions. Furthermore, it is not obvious in light of the teachings of Tsujimoto that compositions which are void of an organosiloxane and a hydrosilating catalyst would be useful for any purpose in any type of application.

Tsujimoto does not disclose, suggest, or imply that the thermoplastic elastomer compositions described therein could be used as overmolding compositions. The teachings of Tsujimoto have nothing to do with manufacturing articles having a soft thermoplastic elastomer composition overmolded onto a hard substrate. Accordingly, the teachings of Tsujimoto do not suggest or imply that the compositions described therein would be useful in overmolding applications. Accordingly, the teachings of Tsujimoto cannot possibly render obvious the fact that the soft thermoplastic compositions called for in the claims of the subject patent application could be used in overmolding applications.

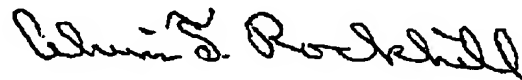
The Examiner has indicated that the Applicants have made certain admissions with respect to overmolded articles. However, the only admission made by the Applicants was the existence of articles in the prior art wherein a soft composition is overmolded onto a hard substrate. The Applicants did not make any admission indicating that the soft polymeric compositions called for in their claims would be useful for overmolding onto hard substrates. Accordingly, it is the Applicants' position that the prior art does not render obvious the utilization of the soft elastomeric composition called for in their claims in overmolding applications. In other words, it is not obvious that the soft thermoplastic elastomer compositions called for in the claims of the present patent application could be successfully utilized in overmolding applications.

Twelve (12) claims were canceled by this amendment and eleven (11) new claims were added. Thus, there was a net reduction of one (1) total claim with only two independent claims now being pending. It is accordingly believed that no fees are required for filing this amendment. However, the Commissioner is hereby authorized to deduct any required fee or

credit any overpayment to Deposit Account 07-1725.

For the reasons stated herein, the teachings of Tsujimoto do not render obvious any of the claims now pending in the subject patent application. All of the claims now pending in the subject patent application are accordingly fully in compliance with the requirements of 35 U.S.C. 103(a) and the Examiner is respectfully requested to allow all pending claims.

Respectfully submitted,



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